AZ - 500 : Microsoft Azure Security Technologies

Course Outline

- **Secure Azure solutions with Azure Active Directory**
  - Configure Azure AD and Azure AD Domain Services for security
  - Create users and groups that enable secure usage of your tenant
  - Use MFA to protect user's identities
  - Configure passwordless security options

- **Implement Hybrid identity**
  - Deploy Azure AD Connect
  - Pick and configure the best authentication option for your security needs
  - Configure password writeback

- **Deploy Azure AD identity protection**
  - Deploy and configure Identity Protection
  - Configure MFA for users, groups, and applications
  - Create Conditional Access policies to ensure your security
  - Create and follow an access review process

- **Configure Azure AD privileged identity management**
  - Describe Zero Trust and how it impacts security
  - Configure and deploy roles using Privileged Identity Management (PIM)
  - Evaluate the usefulness of each PIM setting as it relates to your security goals

- **Design an enterprise governance strategy**
  - Explain the shared responsibility model and how it impacts your security configuration
  - Create Azure policies to protect your solutions
  - Configure and deploy access to services using RBAC

- **Implement perimeter security**
  - Define defense in depth
  - Protect your environment from denial-of-service attacks
  - Secure your solutions using firewalls and VPNs
  - Explore your end-to-end perimeter security configuration based on your security posture

- **Configure network security**
  - Deploy and configure network security groups to protect your Azure solutions
  - Configure and lockdown service endpoints and private links
  - Secure your applications with Application Gateway, Web App Firewall, and Front Door
  - Configure ExpressRoute to help protect your network traffic

- **Configure and manage host security**
  - Configure and deploy Endpoint Protection
  - Deploy a privileged access strategy for devices and privileged workstations
  - Secure your virtual machines and access to them
  - Deploy Windows Defender
  - Practice layered security by reviewing and implementing Security Center and Security Benchmarks

- **Enable Containers security**
  - Define the available security tools for containers in Azure
  - Configure security settings for containers and Kubernetes services
  - Lock down network, storage, and identity resources connected to your containers
  - Deploy RBAC to control access to containers

- **Deploy and secure Azure Key Vault**
  - Define what a key vault is and how it protects certificates and secrets
  - Deploy and configure Azure Key Vault
  - Secure access and administration of your key vault
  - Store keys and secrets in your key vault
  - Explore key security considerations like key rotation and backup/recovery

- **Configure application security features**
  - Register an application in Azure using app registration
  - Select and configure which Azure AD users can access each application
  - Configure and deploy web app certificates

- **Implement storage security**
  - Define data sovereignty and how that is achieved in Azure
  - Configure Azure Storage access in a secure and managed way
  - Encrypt your data while it is at rest and in transit
  - Apply rules for data retention

- **Configure and manage SQL database security**
  - Configure which users and applications have access to your SQL databases
  - Block access to your servers using firewalls
  - Discover, classify, and audit the use of your data
  - Encrypt and protect your data while it is stored in the database

- **Configure and manage Azure Monitor**
  - Configure and monitor Azure Monitor
  - Define metrics and logs you want to track for your Azure applications
  - Connect data sources to and configure Log Analytics
  - Create and monitor alerts associated with your solutions security

- **Enable and manage Microsoft Defender for Cloud**
  - Define the most common types of cyber-attacks

- Configure Microsoft Defender for Cloud based on your security posture
- Review Secure Score and raise it
- Lock down your solutions using Microsoft Defender for Cloud's workload protection
- Enable Just-in-Time access and other security features

- **Configure and monitor Microsoft Sentinel**
  - Explain what Microsoft Sentinel is and how it is used
  - Deploy Microsoft Sentinel
  - Connect data to Microsoft Sentinel, like Azure Logs, Azure AD, and others
  - Track incidents using workbooks, playbooks, and hunting techniques